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THE EFFECT OF INTERNAL AND EXTERNAL FACTORS OF COMPANIES ON PROFITABILITY AND ITS IMPLICATIONS ON STOCK PRICE INDEX OF STATE-OWNED BANKS

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ABSTRACT

This study aims to determine the effect of internal factors of the company (CAR, NPL, NIM, BOPO and CASA) and external factors of the company (inflation, economic growth and BI reference interest rates), both partially and jointly on the performance of State-Owned Banks measured with a Return on Assets ratio (ROA) and its implications on the Stock Price Index. The object of research is State-Owned Banks in the period of 2012 - 2017. The sampling technique is saturated sampling, that is, all members of the population are used as samples. The analysis technique used is Panel Data Regression. The results of this study indicate that CAR, NPL, NIM, BOPO, CASA, Inflation, Economic Growth and BI reference interest rate together have a significant effect on ROA. NIM, CASA and BI Reference Interest Rate partially had a positive and significant effect on ROA. BOPO, Inflation and Economic Growth partially have negative and significant effect on ROA. While CAR has a negative effect and NPL has a positive effect, but not significant on ROA. ROA has a negative and significant effect on Stock Price Index of State-Owned Banks.

Contribution/Originality: This study contributes to the existing literature, useful for science in banking about the relationship between the company's internal and external factors on bank profitability and its implications for the Stock Price Index. In addition, adding literature in the financial sector is used as a guideline for subsequent research that will examine banking.

1. INTRODUCTION

The role of national banking is very important, especially in Indonesia's economic development. This role was manifested in its main function as an intermediary with its main activities in accordance with Law No. 7 of 1992 concerning Banking which was amended to Law No. 10 of 1998, namely (1) Funds in the form of savings and time deposits, (2) Distributing credit to the community both working capital loans and investment loans for business development. (3) Carry out various services in trade and payment activities both domestically and abroad as well as various other services in the financial sector. In addition to the general functions mentioned above, the bank also functions as an agent of trust, agent of development and agent of service (Indonesian Bankers Association, 2016).

Banks are a business of trust and therefore need to be managed carefully by implementing good governance and effective risk management. According to the Financial Services Authority Regulation Number: 55 / POJK.03 / 2016 dated December 9, 2016 concerning Implementation of Governance for Commercial Banks that commercial

banks must apply the principles of good governance in each bank's business activities at all levels or levels of the organization.

State-Owned Banks consisting of Bank BRI, Mandiri, BNI and BTN have the same roles and functions as other commercial banks, namely as collector, distributor, and service provider in the payment and circulation of money in the community that aims to support the implementation of national development, in order to improve equity, economic growth and national stability towards increasing the welfare of the people (Latumaerissa, 2017).

State-Owned Banks have a very strategic role in national development considering that the total assets owned are very large. At the end of 2017 it reached IDR 2,986,598 billion or 40.43% of the total national banking assets of IDR 7,387,110 billion (Financial Services Authority, 2018).

State-Owned Banks in carrying out their business activities as well as other commercial banks, have the main goal of obtaining maximum profit or profit by utilizing their productive assets, both profits that come from operational and non-operational activities. The benefits of State-Owned Banks to this point are still largely supported by interest income from lending.

According to Harmono (2017) profitability is used as a fundamental performance indicator of the company representing management performance. Profitability has a causal relationship to company value through stock price indicators that are traded in the capital market. One of the financial ratios used to measure the condition of bank profitability is Return on Assets (ROA).

For the last 6 (six) years from 2012 to 2017, the ROA of State-Owned Banks fluctuated and slightly decreased as shown in Figure 1. Decreasing profitability (ROA) of State-Owned Banks will certainly have implications for stock prices / Stock Price Index. Investors have an interest in the growth of stock prices because of the stock price, investors can get capital gains or capital loss. According to Fahmi (2014) several conditions and situations that affect fluctuations in stock prices, including micro and macroeconomic conditions, company performance, company policies and market psychology effects.

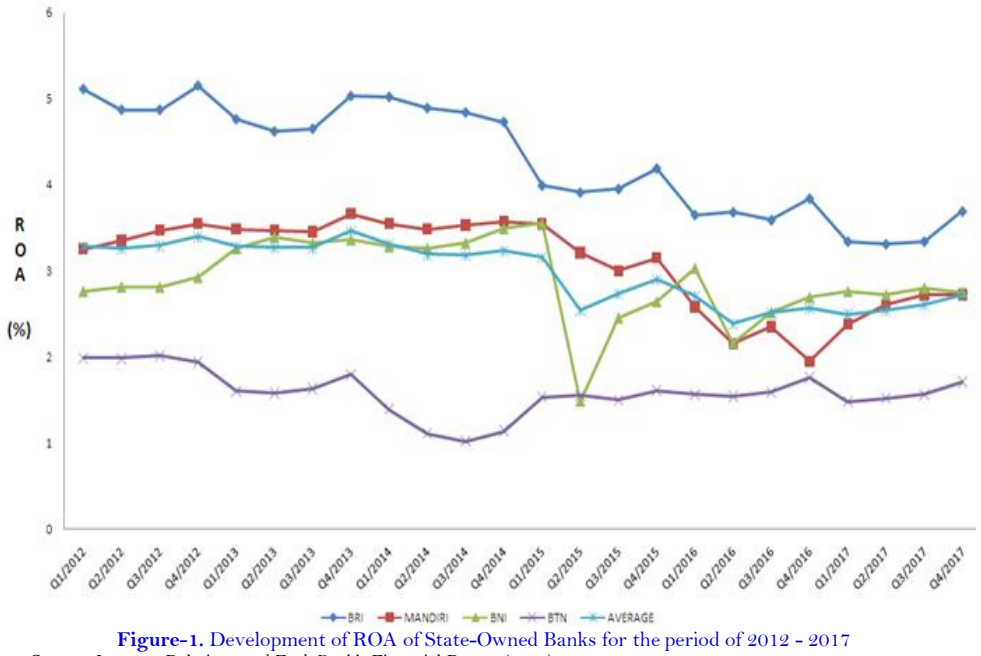

Figure-1. Development of ROA of State-Owned Banks for the period of 2012 - 2017
Source: Investor Relations and Each Bank's Financial Report (2018)

During the period of 2012 to 2017, the Stock Price Index of State-Owned Banks fluctuated and slightly increased, as presented in Figure 2.

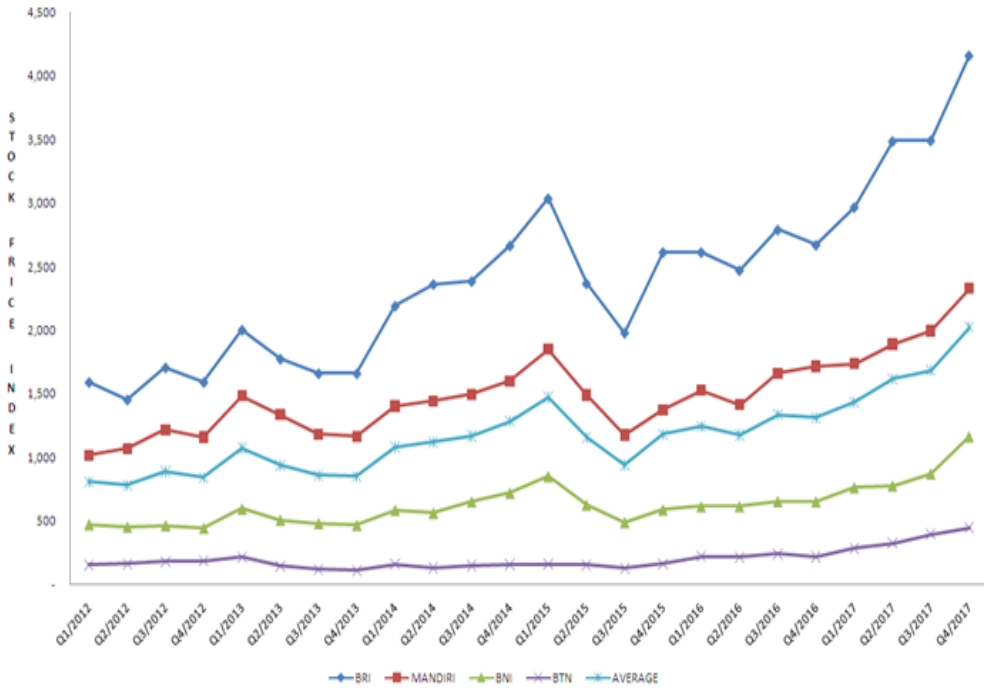

Figure-2. Development of State-Owned Banks Stock Price Index for the Period of 2012-2017
Source: Investor Relations Bank and IDX (2018)

Decreasing profitability (ROA) of State-Owned Banks is interesting to do research, whether due to internal factors or the company's external factors which have implications for the stock price index. The internal factors of the company such as capital (CAR), asset quality problems (NPL), low cost fund structure (CASA - Current Account Savings Account) and efficiency problems (BOPO and NIM) while external factors such as inflation, economic growth and Bank Indonesia Reference Interest rate (BI Rate / BI 7-Day Repo Rate).

2. LITERATURE REVIEW

Functions and Types of Banks. Indonesian banking in carrying out its functions based on economic democracy and using the principle of prudence. The main function of Indonesian banking is as a collector and distributor of public funds and aims to support the implementation of national development in order to improve the lives of many people (Latumaerissa, 2017). Besides the general functions mentioned above, banks also have a function as agents of trust, agents of development and agent of service. According to Law No. 10 of 1998 concerning Banking, banks consist of 2 (two) types, namely Commercial Banks and Rural Banks. According to Budisantoso and Nuritomo (2013) and Kasmir (2015) in addition to the types of Commercial Banks and Rural Banks, banks in Indonesia can be classified according to their ownership, namely State-Owned Banks, Private Owned Banks, Foreign Private Banks, Regional Development Banks and Mixed Banks.

Analysis of Financial Statements**.** According to Horne and Wachowics (2009) financial (report) analysis is the art of converting data from financial statements to information that is useful for decision making. Financial analysis involves the use of various financial statements: balance sheet, income statement and additional information. Whereas Ross (2009) financial statement analysis is basically an application of "management by exception" which is useful for both internal and external use. The financial statements are prepared in purpose as a means of communicating to the owner and all stakeholders how the manager runs his business (Wiyono and Kusuma, 2017). Financial statements are the language of business because in the financial statements, it contains information about the company's financial condition to its users (Wijaya, 2017). To make it easier to understand the company's financial condition, a financial ratio analysis is conducted (Husnan, 2015) which can be broadly grouped into profitability ratios, asset management ratios, debt management ratio, liquidity ratio and market value ratio.

Company performance. Company performance assessment is one of the ways that can be done by management in order to fulfill its obligations to funders and also to assess the objectives set by the company. According to the IBA (2016) the company's performance, especially bank profits, is influenced by various factors, both internal banks and those from external banks. Company performance is generally measured based on net income (earnings) or as a basis for other measures such as investment returns (return on investment) or earnings per share. Elements that are directly related to measuring net income (income) are income and expenses (Harmono, 2017). According to Wijaya (2017) the company's goal is to maximize the company's wealth or value for shareholders. The value of companies that go public (public companies) is reflected in the market price of company shares, while the value of companies that have not go public (closed companies) is reflected when the company will be sold.

Capital Adequacy Ratio (CAR). CAR is the adequacy ratio of fulfilling a bank's minimum capital. CAR is a ratio or comparison between bank capital and Risk Weighted Assets (ATMR). The bank's capital is primarily intended to cover unexpected losses and reserves in the event of a banking crisis. Bank capital also functions so that depositors who save money at the bank feel calm that the money saved will be guaranteed to be released on time. According to the Financial Services Authority Regulation Number: 11 /POJK.03/2016 dated 29 January 2016 concerning the Minimum Capital Requirement for Commercial Banks, banks are required to provide minimum capital in accordance with the risk profile.

Non Performing Loan (NPL). NPL or non-performing loans in a bank business are common, but banks must take action to prevent / minimize the occurrence of non-performing loans in banks. In accordance with Bank Indonesia regulations, the NPL must not exceed 5% of the total debit balance. This provision makes it clear that the banking business can continue to run even if the bank as an intermediary institution is able to manage its credit by adhering to the principle of prudence. Credit distribution activities contain risks that can affect the health and sustainability of the bank's business (Subagio, 2015).

Net Interest Margin (NIM). Interest is the main source in the banking industry. Interest income is interest derived from productive assets. The amount of interest income depends on the interest rate that applies in the market and the composition of the categories of productive assets of the bank. The decrease or increase in interest income can be due to changes in the bank's strategy in its loan portfolio management and is influenced by market interest rates in general along with the movement of the BI rate (IBA, 2016).

Operational Costs for Operational Income (BOPO). BOPO is formulated as a ratio / ratio of operating costs in the last 12 months to operating income for the same period. The lower BOPO illustrates that the bank maximizes its operating income compared to its relatively small operational costs or the more efficient bank operations.

Current Account Saving Account (CASA). Deposits are the main source of funding for the general banking industry. Deposits are defined as funds entrusted by the public to banks in the form of demand deposits, time deposits and savings. Of the three types of deposits, time deposits are high-cost public funds. CASA stands for Current Account Savings Account is a low-cost fund consisting of demand deposits and savings. CASA is a comparison of the number of current accounts and savings obtained compared to the total funds collected.

Inflation. Inflation is an economic symptom that shows a sustained increase in the price level. The inflation requirement is an increase in prices in general and continuously. If only one and two types of goods rise, that is not inflation. Temporary price increases, for example price increases due to seasonality, ahead of holidays, disasters and so on are not referred to as inflation. Inflation can cause some bad consequences, both for people per person, society and overall economic activity (Hasyim, 2016)

Economic Growth. According to Hasyim (2016) economic growth can be interpreted as a process of continually changing a country's economic condition towards a better condition for a certain period. Economic growth can also be interpreted as a process of increasing the production capacity of an economy that is realized in the form of an increase in national income. The indicator commonly used to measure economic growth is gross

domestic product (GDP), which measures the total income of everyone in the economy. The existence of economic growth is an indication of the success of economic development in people's lives.

BI Reference Interest Rate. BI Reference Interest Rate (BI Rate / BI 7-Day Repo Rate) is a policy interest rate that reflects the monetary policy stance set by Bank Indonesia (Central Bank) and announced to the public. The BI Rate / BI 7-Day Repo Rate is announced by the Bank Indonesia Board of Governors at each Board of Governors Meeting and implemented in monetary operations conducted by Bank Indonesia through liquidity management in the money market to achieve the operational objectives of monetary policy (www / bi. go .id, 2018).

Return on Assets (ROA). ROA is a ratio used to measure bank performance in generating profit / profitability (IBA, 2016). ROA is a ratio that shows the effectiveness of a company or banking in managing its assets to obtain income for the bank. The greater the ratio shows the greater the effectiveness of the bank in managing its assets. ROA is influenced by profit and total assets in a company or bank.

Stock Price Index. The Stock Price Index is an indicator or a reflection of stock price movements. The index is one of the guidelines for investors to invest in the capital market (Wira, 2017). An index is needed as an indicator to observe price movements of securities (Jogiyanto, 2016). The ups and downs of the Stock Price Index depend on the ups and downs of stock prices on the stock exchange. According to Fahmi (2014) there are several conditions and situations that determine a stock will experience fluctuations, namely: (1) Micro and macroeconomic conditions. (2) Company policy in deciding to expand (expansion of business) such as opening branch offices, supporting branch offices both opened domestically and abroad. (3) Change of directors suddenly. (4) The presence of directors or commissioners of companies involved in criminal acts and the case has been entered into court. (5) Company performance. (6) Systematic Risk, which is a form of risk that occurs thoroughly and has contributed to the company's involvement. (7) Securities from market psychology that are able to suppress the technical conditions of buying and selling shares. With the index (Stock Price Index), we can find out the current trend in stock price movements, whether it is rising, stable or down. The movement of the index becomes important for investors to determine whether they will sell, hold or buy a stock or several shares. The Stock Price Index is divided into two, namely (1). Individual Stock Price Index. Showing changes in a company's stock price, is a value that has a function to measure the work performance of a particular stock against its base price. (2) Composite Stock Price Index. Shows general stock price movements listed on the stock exchange. This index is most widely used and is used as a reference for the development of activities in the capital market.

Framework and Research Hypothesis. Banking performance especially financial performance (profit) and performance Sock Price Index are influenced by various factors, both internal banks and those from external banks. External factors come from the environment outside the bank's control. External factors can simplify and make it difficult for banks to make a profit. The bank's financial performance will have an influence on the development of the stock price index. This study is intended to analyze the company's internal factors (CAR, NPL, NIM, BOPO, CASA) and company external factors (inflation, economic growth and BI Reference Interest Rate) on profitability (ROA) and its implications for the State-Owned Bank Stock Price Index. The research method used is the hypothesis testing method by analyzing the effect of independent variables: CAR, NPL, NIM, BOPO, CASA, inflation, economic growth and BI Reference Rate on the dependent variable, namely ROA and the Stock Price Index. The relationship between the variables used in the study is presented in Figure 3.

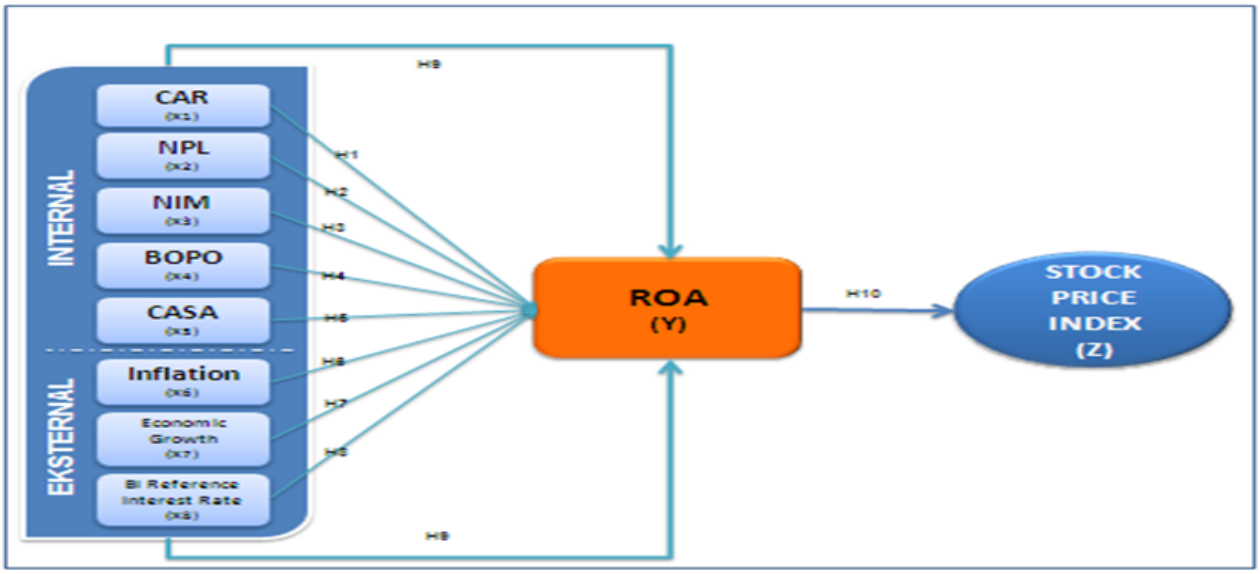

Figure-3. Framework

Source: Developed by Researchers, a Collection of Previous Studies

Based on this framework, the researcher tried to conclude temporarily through the following hypothesis:

1. H1: CAR has a positive effect on ROA
2. H2: NPL has a negative effect on ROA.
3. H3: NIM has a positive effect on ROA.
4. H4: BOPO has a negative effect on ROA.
5. H5: CASA has a positive effect on ROA.
6. H6: Inflation has a negative effect on ROA.
7. H7: Economic growth has a positive effect on ROA.
8. H8: Interest Rate Reference BI has a negative effect on ROA.
9. H9: CAR, NIM, BOPO, CASA, Inflation, Economic Growth and BI Reference Interest Rate jointly has a positive effect on ROA.
10. H10: ROA has a positive effect on the Stock Price Index.

3. RESEARCH METHODOLOGY

Types of research. This type of research uses quantitative research using causal design, which is to know between the company's internal factors and the company's external causes (independent variables) and bank profitability and the stock price index that becomes a result (dependent variable) and analyzes the influence between variables and how a variable affects other variables.

Population and Samples. The population in this study are all State-Owned Banks in Indonesia and listed on the Indonesia Stock Exchange (IDX), which are as many as 4 banks, namely Bank Mandiri, BRI, BNI and BTN during the period of 2012 to 2017. Samples in this study is saturated sampling that is all members of the population are used as research samples.

Data and Data Collection Methods. The data in this study are secondary data and documented data . According to Timothy (2017) data is collected / collected from data sources. The data source is the object of research or documents, whether published or not. The data used is in the form of quantitative data that are secondary data for the period 2012-2017, which are obtained from State-Owned Banks reports that have been published on the webs of the Bank, BI, OJK and IDX as well as data issued by other government institutions. Data collected into panel data is a combination of time series data (time series) and cross data (cross section).

Data Analysis Method. Data processing methods in this study will use the program Eviews 10. Eviews are computer programs used for statistical and econometric data processing, can be used to solve problems in the form of time series, cross sections and panel data (Winarno, 2017).

Descriptive Analysis. In the descriptive test the calculation of the mean, the maximum data, the minimum data and the deviation standard for the data collected previously. This test was conducted with the aim to see the reasonableness and characteristics for each variable.

Model Determination. Determination of the best model between common effect (CE), fixed effect (FE) and random effect (RE), uses 2 (two) model estimation techniques. These two techniques are used in panel data regression to obtain the right model in estimating panel data regression. Two tests are used, the first Chow test is used to choose between the common effect or fixed effect models. Second. The Hausman test is used to choose between the best fixed effect or random effect models in estimating panel data regression.

Classical Assumption Test. In the classic assumption test only the multicollinearity and heteroscedasticity tests are used, considering that for panel data and a large number of samples generally the data has norm distribution, whereas autocorrelation generally occurs in time series data. Testing classical assumptions is needed to find out whether the results of regression estimation performed are completely free of the symptoms of multicollinearity and heteroscedasticity. Multicollinearity test aims to test whether the panel regression model found a correlation between independent variables. A good model is a model that does not have a correlation between the independent variables. Multicollinearity arises if among independent variables have a high correlation and make it difficult for us to separate the effect of an independent variable on the dependent variable from the effects of other variables. This is due to changes in a variable that will cause changes in the pair variable because of the high correlation. Heteroscedasticity test is done to detect the spread or emission of variables. In addition, it also tests whether in a regression model there is an inequality of variance from the residual from another observation.

Regression Analysis. Regression analysis aims to determine the effect of independent variables on the dependent variable during the study period. To test the hypotheses in this study, the regression equation model will be used as the following:

Equation I : $Y = a + b1x1 + b2x2 + b3x3 + b4x4 + b5x5 + b6x6 + b7x7 + b8x8 + et$

Y : ROA which is the effectiveness of the bank in managing its assets to generate profit.

a : Constants

b : Regression coefficient

x1 : CAR is the minimum capital adequacy of a bank

x2 : NPL, namely the amount of bank loans that have problems

x3 : NIM, namely the ability of banks to produce net interest

x4 : BOPO, namely the ability of banks to optimize the use of costs operational to generate operating income

x5 : CASA namely the ability of banks to raise low-cost funds.

x6 : Inflation is a symptom of rising prices in general and sustainable

x7 : Economic growth, namely the process of continuously changing the economic condition of a country towards a better situation

x8 : BI Reference Interest Rate is BI Rate / BI 7- Day Repo Rate

et : Error term

Equation 2 : $Z = a + bY + et$

Z : Stock Price Index

a : Constants

b : Regression coefficient

Y : ROA which is the effectiveness of the bank in managing its assets to generate profit.

Et : Error term

The regression coefficient is very decisive as a basis for analysis. This means that if the coefficient b is positive (+), it can be said that there is a direct influence between the independent variable and the dependent variable, whereas vice versa if the regression coefficient b is negative (-), indicating a negative influence so that the increase in the value of the independent variable will result in a decrease in value dependent.

The accuracy of the sample regression function in estimating the actual value can be measured by its goodness of fit. Statistically measured from the value of the coefficient of determination (R2), the statistical value F (feasibility test model) and statistical value t (test the significance of individual parameters).

1. **Coefficient of Determination (R2)**

   The coefficient of determination (R2) is intended to measure how far the model's ability to explain the dependent variable. The coefficient of determination (R2) between zero and one. A small R2 value means variable ability the independent variable in explaining the variation of the dependent variable is very limited. The value of R2 which approaches one means that the independent variables provide almost all the information needed to predict variations in the dependent variable.

2. **Feasibility Model Test(Test F Statistics**)

   The F-Statistic test shows whether all the independent variables included in the model have a joint influence on the dependent variable and also for analyzing multiple regression by assessing the F number describing the feasibility and failure of the regression equation. The trick is to compare F count with F Table. if F count> F Table, then the regression is considered feasible. In analyzing multiple regression can be used by comparing significant values with a confidence interval of 95% or a significance level of 5% (alpha = 0.05 or 5%). The results of the research analysis are significant <0.05, then Ho is rejected and if the results of the research analysis are significant> 0.05, then Ho is accepted.

3. **Significant Individual Parameter Tests (Test Statistics t)**

   Analysis of the coefficient table or t test illustrates the significant level between the independent variables and the dependent variable partially. In multiple regression, maybe the independent variables are jointly significant, but not necessarily individually or partially all the independent variables have a significant effect on the dependent variable. Thus, a partial test or t test is needed by considering the real value of the small t count of the specified alpha. Basic decision making as follows:

   If p-value <alpha 0.05 then Ho is rejected

   If p-value > alpha 0.05 then Ho is accepted.

4. RESULTS AND DISCUSSION

Descriptive Analysis. Statistics give a description or a descriptive data that is seen from the mean, maximum, minimum and standard deviations of each variable. The results of testing descriptive statistics on research variables are presented in Table 1.

Table-1. Descriptive Statistics

No	Variable	Mean	Maximum	Minimum	Standard Deviations
1	ROA	2.966667	5.150000	1.020000	1.079386
2	CAR	17.99812	22.96000	14.33000	2.259273
3	NPL	2.793021	5.010000	1.550000	0.926321
4	NIM	6.258958	9.060000	4.320000	1.299472
5	BOPO	72.67198	89.91000	59.93000	8.278739
6	CASA	58.19125	68.94000	39.51000	7.266869
7	Inflation	5.238333	8.400000	3.020000	1.772362
8	Economic Growth	5.334563	6.0 00000	4.670000	0.528155
9	BI Reference Interest Rate	6.281250	7.750000	4.250000	1.190560
10	Stock Price Index	1178.261	4160.000	108.7500	933.9425

Source: Eviews 10 Data Processing Results

Return on Asset (ROA). The average ROA of State-Owned Bank is 2.966667% is quite good above 2%, this shows that the ability of State-Owned Banks to manage their assets to produce very good profits. The maximum value of the ROA variable of 5.150000% is owned by Bank BRI in Q4 / 2012, while the minimum value of the ROA variable is 1.020000 which is owned by Bank BTN in Q3 / 2014, indicating that Bank BTN is less able to manage its productive assets well to generate profits. Low profitability due to high BOPO is still above 80% and NPL is still above 3%.

Capital Adequacy Ratio (CAR). The average CAR of State-Owned Banks is 17.99812%, this shows that the capital of State-Owned Banks is strong enough.

All State-Owned Banks have CAR above 8% according to what is required by the regulator. The maximum CAR variable value of 22.96000% is owned by BRI Bank Q4 / 2017, while the minimum CAR value of 14.33000% is owned by Bank BTN in Q3 / 2014.

Non Performing Loans (NPL). The average State-Owned Banks NPL of 2.793021% is still below the OJK's determination, which is a maximum of 5%. The maximum NPL variable value of 5.01000 is owned by Bank BTN in Q2 / 2014, but slowly the NPL falls in Q2 / 2014 and Q4 / 2014 to be 4.85% and 4.01% respectively which results in profitability (The ROA is down to close to 1%, due to the large amount of reserves that must be formed. The minimum NPL of 1.55000% NPL is owned by Bank BRI in Q4 / 2013.

Net Interest Margin (NIM). The average NIM of State-Owned Banks is 6.258958% is quite good and still high compared to NIMs in ASEAN countries which range from 3% - 5%. The maximum value of the NIM variable of 9.060000% is owned by Bank BRI in Q1 / 2014. BRI's NIM is indeed quite high because BRI focuses on MSMEs that have large margins. The lowest NIM value of 4.320000% is owned by Bank BTN in Q1 / 2017 because the LDR is already above 100% which is 109.79% (maximum 110% according to OJK provisions) and high BOPO of 84.13% and CASA (low cost funds) which is only 48.31%. (the fund structure of 51.69% is supported by expensive funds, namely high deposits and funds between banks).

Operational Costs for Operational Accounts (BOPO). The average State-Owned Bank's BOPO of 72.67198%, is still high, this shows that in terms of efficiency, state-owned banks need to increase efficiency so that the BOPO is lowered again. In terms of profit efficiency and alternative profit efficiency, State-Owned Banks are still under Foreign Banks and Mixed Banks (Suharyadi and Sumarto, 2017). The maximum BOPO variable value of 89.91% is owned by Bank BTN in Q3 / 2014 which resulted in its ROA falling to the lowest 1.02% in the last 6 years. The minimum BOPO value of 59.93000% is owned by Bank BRI in Q4 / 2012.

Current Account Savings Account (CASA). The average CASA (low-cost funds) of State-Owned Banks amounting to 58.19125%, still low, needs to be improved compared to one of the top national private banks, whose CASA is already above 75%. The highest CASA variable value of 68.94000% is owned by Bank BNI in Q4 / 2013, while the minimum CASA value is 39.51000% owned by BTN Bank on Q1 / 2012. Bank BTN needs to increase its CASA by increasing EDC, ATMs etc. by utilizing the customer database data maximally, especially the developer.

Inflation. The average inflation that occurred in Indonesia was 5.238333%. The maximum inflation variable value of 8,40000% occurs in Q2 / 2013, while the minimum inflation value is 3.02000% Q4 / 2016. High inflation will have an impact on the decline in people's purchasing power.

Economic growth. The average economic growth in Indonesia is 5.334583%. The maximum value of economic growth variable is 6,40000% in Q2 / 2012 while the minimum value of economic growth is 4.67000% in Q2 / 2015. Low economic growth has an impact on increasing unemployment.

BI Reference Interest Rate . The Average for BI Reference Interest Rate (BI Rate / BI 7-Day Repo Rate) is 6.281250%. The Variable value of maximum BI Reference interest rates amounting to 7.750000% occurs in the period of Q4 / 2013 – Q4 / 2015, while the BI Reference Interest Rate minimum of 4.250000% occurs in the period of Q3 / 2017 – Q4 / 2017. BI's high interest rate will have an impact on high deposit rates (COF), which will be followed by high lending rates.

Stock Price Index. The average of State-Owned Banks Stock Price Index is 1,178.261. The variable value of the maximum stock price index of 4,160.000 is owned by Bank BRI in Q4 / 2017. This occurs because of the company's excellent performance and the stock split conducted on November 10, 2017 with ratio 1: 5 from IDR. 250 / share to IDR. 50 / share. The minimum stock index value of 108.7500 is owned by Bank BTN in Q4 / 2013.

Determination of Common Effect Models, Fixed Effect and Random Effect. Determination of the best model in estimating panel data regression between Common Effect (CE), Fixed Effect (FE) and Random Effect (RE) using the Chaw test and Hausman Test. The Chaw test and the Hausman Test obtained a better Fixed Effect model than the Common Effect model, both for equation I and equation II.

Classical Assumption Test Results. Before testing the hypothesis proposed in this study, a classic assumption test is needed. The classic assumption test on panel data regression used to carry out testing is the multicollinearity test and heteroscedasticity test. Correlation coefficient values between low variables are still below 85% on average, so it can be said that there are no serious multicollinearity among independent variables (Winarno, 2017). From the residual ROA graph that the variant of the error is not constant, the graph shows a certain pattern. This indicates there seems to be heteroscedasticity (Kariadi, 2017). To cure heteroscedasticity the author uses the weighting method.

Data Analysis Equation I. Based on data processing using Eviews 10, after the model selection test and the classic assumption test are then carried out a hypothesis test to see whether the null hypothesis will be rejected or accepted. The results of the regression panel data of equation I are presented in Table 2.

Table-2. Results of Data Analysis Panel Equation I Dependent Variable ROA

Variable	Coefficients	t-statistic	P-Value	Remark
C	9.089343	16.57508	0.0000	-
CAR (X1)	-0.010713	-1.289687	0.2007	Not Significant
NPL (X2)	0.022958	1.078929	0.2837	Not Significant
NIM (X3)	0.205380	6.971209	0.0000	Significant
BOPO (X4)	-0.104086	-22.37297	0.0000	Significant
CASA (X5)	0.009718	2,315449	0.0230	Significant
Inflation (X6)	-0.031479	-3.335669	0.0013	Significant
Economic Growth (X7)	-0.103898	-3.258702	0.0016	Significant
BI Reference Interest rate (X8)	0.069786	4.769109	0.0000	Significant
R-square = 0.990617 Adjusted R-squares = 0.989388 F-statistic = 806.2189 Prob. (F-statistic) = 0.000000				

Source: Eviews 10 Data Processing Results

From the table above, the regression equation can be described as follows:

ROA = 9.089343 -0.010713 CAR + 0.022958 NPL + 0.205380 NIM – 0.104086 BOPO + 0.009718 CASA – 0.031479 Inflation – 0.103898 Economic Growth + 0.069786 BI Reference Interest Rate + *et*

Results of the Determination Coefficient (R2). The coefficient of determination (R2) is used to measure how far the model's ability to explain the variation of the dependent variable. The coefficient of determination is between zero and one. The value of R2 approaching one means that the independent variables provide almost all the information needed to predict variations in the dependent variable. The results showed that the coefficient of determination (R2) for the dependent variable ROA was obtained at 0.990617 or 99.0607%. This shows that 99.0607% of ROA performance ratio is influenced / can be explained by the variables CAR, NPL, NIM, BOPO, CASA, Inflation, Economic Growth and BI Reference Interest Rate (BI Rate / BI 7-Day Repo Rate), while the rest amounting to 0.009383 or 0.9383% explained by other variables not included in the estimation model.

F Test. The F test in this study was used to test the suitability of the model used, namely panel data regression by comparing the Prob. F-statistic with a significance of 5%. If the Prob. F-statistic <0.05, then the

model is feasible to use. The results showed that the value of the Prob. The F-statistic of 0.000000 is smaller than the 0.05 significance, this means that the model is feasible to use. Besides that, hypothesis testing for the F test is used to see whether the overall (simultaneous) independent variable has a significant influence on the dependent variable. In this case the F test is used to test the hypothesis H9. The results of data processing show that the independent variables (CAR, NPL, NIM, BOPO, CASA, Inflation, Economic Growth and BI Reference Interest Rate) have a significant F calculated Prob. (F-statistic) of 0.000000 with a significance level smaller than 0.05 on the dependent variable ROA. Thus the results of the analysis in this study indicate that together the independent variables (CAR, NPL, NIM, BOPO, CASA, Inflation, Economic Growth and BI Reference Rate) have a significant effect on ROA

T Test . The statistical test t (t test) shows how far the influence of one independent variable individually in explaining the dependent variable. In this study the t test is used to test hypotheses H1, H2, H3, H4, H5, H6, H7 and H8.

The results of the t test show that:

a. Variable Capital Adequacy Ratio (CAR) or minimum capital adequacy has a value of Prob. Value 0.2007 greater than 0.05 with the coefficient -0,010713, this means that CAR has a negative and not significant effect. The results of this study show the same results as the results of research conducted by Defri (2012) and Dewi *et al.* (2015) which states that CAR partially has no significant effect on ROA. Whereas Sudiyanto and Jati (2010), Pranataa (2015), Bilian and Purwanto (2015) and Simanjuntak (2016) stated that there was a positive and significant effect of CAR on ROA. Irawan (2017) from the results of his research CAR shows that there is a significant negative effect on ROA.

b. Non Performing Loan (NPL) variable has a value of Prob. Value 0.2837 greater than 0.05 with a coefficient of 0.022958 which means that the NPL has a positive and not significant effect on ROA. Research conducted by Simanjuntak (2016) shows that partially NPL has a significant positive effect on ROA. Another study conducted by Irawan (2017) that NPL has a negative and not significant effect on ROA while (Dewi *et al.*, 2015) stated that NPL had a negative and significant effect on ROA.

c. Variable Net Interest Margin (NIM) is estimated to affect ROA which shows how much interest income from funds lent to the public or debtors received by the bank compared to interest expenses that must be paid by the bank to customers who deposit their funds in the bank. The greater the value of the NIM, the greater the ROA. The relationship between the two ratios can be seen from the significance value of 0.000000 so that the hypothesis is null or Ho is rejected and Ha is accepted. The coefficient of 0.205380 shows that an increase in NIM of 1 will result in an increase in ROA of 0.205380. These results strengthen the research of Dewi *et al.* (2015) and Irawan (2017) which states that NIM has a positive and significant effect on ROA, while the results of research from Bilian and Purwanto (2015) state that NIM has a positive but not significant effect on ROA.

d. BOPO variable or operational cost ratio compared to operating income has a significance value of 0.0000 with a coefficient of -0.104086 so that the null hypothesis or Ho is rejected and Ha is accepted, which states that there is a significant negative effect between BOPO and ROA. The higher the BOPO value that will be due to an increase in operating costs or a decrease in bank operating income will result in the bank's net income to decline and impact on the profitability / decline in bank ROA. These results reinforce research conducted by Sudiyanto and Jati (2010), Defri (2012), Chandra (2013), Bilian and Purwanto (2015) and Irawan (2017).

e. Variable CASA (Current Account Saving Account) or popularly called low-cost funds have a value of Prob. Value 0.0230 is smaller than 0.05 with a coefficient of 0.009718, this means that CASA has a positive and significant effect on ROA.

f. Inflation variable has the value of Prob. Value 0.0013 is smaller than 0.05 with a coefficient - 0.031479, this means that inflation has a negative and significant effect on ROA.

g. Variable economic growth has a significance value of 0.0016 with a coefficient of - 0.103898, this means economic growth has a negative and significant effect on Bank profitability (ROA). Stable economic growth is certainly expected to be able to maintain the bank's performance remains good.

h. Variable BI Reference Interest Rates (BI Rate / BI 7-Day Repo Rate) is a tool used by Bank Indonesia to control monetary systems. If future inflation is expected to exceed the target (increase) or the rupiah exchange rate against the USD weakens, the BI Rate / BI 7-Day Repo Rate will be increased by BI. This is intended so that the monetary system is maintained. The significance value of the BI benchmark interest rate is 0.0000 and the coefficient is 0.069786, this means the BI Reference Interest Rate has a positive and significant effect on bank ROA.

5. DATA ANALYSIS OF EQUATION II

Based on data processing using Eviews 10, after a model selection test was conducted, the regression results of panel data in equation II are presented in Table 3.

Table-3. Results of Data Analysis of Panel Equation II Dependent Variable Stock Price Index

Variable	Coefficients	Standard Error	t-statistic	Prob.	Remark
C	3.147557	0.073965	42.55485	0.0000	-
ROA	-0.085272	0.024609	-3.465099	0.0008	Significant
R-squared = 0.932021					
Adjusted R-squared = 0.929033					
F-statistic = 311.9109					
Prob. (F-statistic) = 0.000000					

Source: Eviews 10 Data Processing Results

From the table above, the regression equation can be described as follows:

Stock Price Index = 3.147557 - 0.085272 ROA + et

Results of the coefficient of determination (R2). The results showed that the coefficient of determination (R2) for the dependent variable Stock Price Index was obtained at 0.932021 or 93.2021%. This shows that 93.2021% of the Stock Price Index is influenced / can be explained by the ROA variable and the remainder of 0.067979 or 6.7979% is explained by other variables not included in the estimation model.

F Test. The F test in this study was used to test the suitability of the model used, namely panel data regression by comparing the Prob. F-statistic with a significance of 0.05%. If the Prob. F-statistic <0.05, then the model is feasible to use. The results showed that the value of the Prob. The F-statistic of 0.000000 is smaller than the 0.05 significance, this means that the model is feasible to use.

T Test. The statistical test t (t test) shows how far the influence of one independent variable individually in explaining the dependent variable. In this study the t test is used to test the hypothesis H10. The results of the t test point to a significance value of 0,0008 smaller than 0.05 with a coefficient of -0,085272. This shows that ROA has a significant negative effect on the Stock Price Index.

6. CONCLUSIONS AND SUGGESTIONS

Based on the results of research and discussion, the authors can provide conclusions as follows:

1. The company's internal factors, namely NIM and CASA have a positive and significant effect on ROA of State-Owned Banks. BOPO has a negative and significant effect on ROA of State-Owned Banks. While CAR has a negative effect and NPL has a positive but not significant effect on ROA of State-Owned Banks.

2. The company's external factors, namely inflation and economic growth have a negative and significant effect on the ROA of State-Owned Banks. While the Bank Indonesia Reference Interest Rate has a positive and significant effect on ROA of State-Owned Banks.
3. Together, the company's internal factors (CAR, NPL, NIM, BOPO and CASA) and the company's external factors (Inflation, Economic Growth and BI Reference Interest Rates) have a significant effect on ROA of State-Owned Banks.
4. ROA has a negative and significant effect on Stock Price Index of State-Owned Banks.

From the results of the analysis and conclusions above, the author gives the following suggestions:

1. Suggestions for State-Owned Banks so that financial decision making takes into account external and internal factors of the company that have a significant effect on bank profitability, namely NIM, BOPO, CASA, inflation, Economic Growth and Bank Indonesia Reference Interest Rate movements.
2. Even though the internal and external factors of the company outside of NIM, BOPO, CASA, Inflation, Economic Growth and BI Reference Interest Rate movements does not significantly effect, but it remains to be watched out because in the study period these factors were relatively good and maintained. Capital (CAR) and credit quality (NPL) must be maintained properly, especially in the near future PSAK 71 will be implemented which will certainly add to the provision of productive assets that will affect capital.
3. The Bank's profitability must be maintained and improved in order to maintain investor confidence so that the State-Owned Banks Stock Price Index continues to grow.
4. For investors this research is expected to be a reference for analyzing a bank based on financial performance (ROA) which is associated with the growth of its Stock Price Index.
5. Suggestions for the next study should be able to add / examine other variables both the internal and external factors of the company such as Fee Base Income (FBI), Liquidity (LDR), the exchange rate of USD, GDP (Gross Domestic Product) etc.

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